

European Commission Healthier Together Initiative 2022

Input from the EFPIA Cardiovascular Disease (CVD) Network

1) Every day 5,000 Europeans lose their lives due to Europe's #1 killer: CVD

Seeing the high prevalence and the high burden of cardiovascular diseases for European society, we call on EU policy makers to prioritise the fight against CVDs. Conditions like heart attacks, heart failure, strokes, atrial fibrillation, and others as well as their underlying risk factors need to be addressed with a specific policy plan when building more resilient health-care systems. CVD-patients were among the most vulnerable during the Covid-19 pandemic. They have experienced an increased risk of admission to hospital/intensive care unit (ICU), mechanical ventilation, or death versus those without CVD, underlining the high vulnerability of these patientsⁱ. Data from the first six months of 2020 demonstrate the increased risk: although people with CVD accounted for only 25% of Covid-19 diagnoses in Europe, 35% of the patients with severe disease had CVD, and 44% of Covid deaths were in people with CVDⁱⁱ.

2) Fast implementation of decisive action to mitigate cardiovascular risk factors

Cardiovascular (CV) risk factors need mitigation through appropriate screening and early detection programmes of metabolic as well as inherited risk factors (i.e., blood pressure, blood sugar, BMI, cholesterol and Lp(a)). This could be done via a yearly heart health check at the primary care level where most of Europe's CVD-patients are managed. Screening strategies and policies need to be updated to reflect the latest scientific evidence. Healthcare Professionals (HCPs) need to be trained to detect these diseases early to avoid late or misdiagnoses.

3) Initiation of specialised secondary prevention programmes

Besides deepening primary prevention programmes, CVD-patients need specialised secondary prevention programmes supporting them to achieve better long-term outcomes. An improved adherence to the current scientific treatment guidelines would accelerate the delivery of innovative solutions to patients. HCPs need comprehensive guidance ensuring implementation of discharge and follow-up protocols.

4) Health inequities across Europe and within countries need to be addressed

The current status of health inequities in Europe (both across the EU with poorer outcomes in the CEE countries vs. Western Europe and within countries) is not acceptable and builds a notion of "second class citizens". Population-wide programmes specifically designed to help countries and regions to overcome these inequities need to be prioritised. Continuous monitoring, specific policies at the EU-level as well as harmonised data registries in the member states, could help to identify and effectively address inequalities.

5) Building data & digital capacities e.g., through region-wide registries

Region-wide registry capabilities are needed to monitor outcomes and collect data on interventions in a meaningful way. Better use of data & digital will help identify the right patients for these interventions and provide better data for research and development of innovative treatments. States which pioneer impactful CVD-programmes should be incentivised and their programmes should be promoted as inspiration for others. Positive competition should be endorsed through increased transparency around the health status of CVD-patients in individual countries. EU institutions have a fundamental role to play in this context.

6) Leveraging pharmaceutical innovation & collaborative partnerships

Innovation, including collaboration between public and private entities, needs to be fostered to address the burden of CVD, overcome treatment bottlenecks, and positively influence population health. Pharmaceutical innovation has a role to play in addressing unmet medical needs and seeing improvements in outcomes for CVD patients back on track. This requires strong and stable incentives for

innovation in Europe: a state-of-the-art intellectual property framework, a fast and predictable regulatory system and appropriate/holistic valuation of innovation by payers and HTA bodies. In highly innovative fields such as cell and gene therapies (CGT), collaboration between start-ups, academia, hospital providers and established companies are key to find and translate new treatment opportunities. Precision Medicine and CGT should not be underestimated as future possibilities to treat CVD even more effectively.

The pandemic has taught us: No wealth without health

With the Covid-19 pandemic, the world has experienced a ‘wake-up call’ about the pivotal role that health plays in driving economic stability and maintaining a well-functioning society. As we look to the future and consider more resilient and healthy populations, it is time to tackle the diseases that drive the health burden in Europe and form the underlying vulnerability of our populations when health emergencies such as Covid-19 strike.

Why we need to tackle Europe’s #1 killer now

Sixty million people are living with CVD in the EU, and 13 million new cases of CVD are diagnosed in the region every year. Even in the absence of a global pandemic, CVDs are the leading cause of death in the EU, killing 5,000 people every dayⁱⁱⁱ. Each of those deaths is a loss to a family, to a community and to society. The majority of these deaths are avoidable through effective public health and primary prevention interventions or through timely and effective health care interventions^{iv}.

In 2015, the EU economy lost €210 billion to CVD; of which €111 billion (53%) was in health care costs, €54 billion (26%) in productivity losses, and €45 billion (21%) was in the costs of informal care of people with CVD^v. These costs will increase on a yearly basis driven by the triple threat of demographic changes, lifestyle factors, and climate change (the combined effects of extreme heat and air pollution are documented drivers of acute cardiovascular events)^{vi,vii}.

Any strategy to re-set health care priorities and drive economic stability must address cardiovascular diseases as a root cause of the stress on our health systems, pressure on our welfare systems, and productivity losses in our workforces.

Resilient health systems see health interventions as investments and not costs

Resilient health systems can minimise the disruption caused by a shock event such as a pandemic. The European Parliamentary Research Service (EPRS) identified the siloed approach to health in Europe as a “point of blockage” in emergency response^{viii}. The EPRS proposed that health needs to move “into a wider multi-sectoral framework, which better reflects health as a public priority, and focuses on health as an investment, rather than a cost”.

Non-communicable diseases (NCDs), the most prevalent of which is CVD, are an existential threat to the sustainability and resilience of health systems. Our society’s ability to defend against health and economic crises depends on a strong strategy to mitigate these disease threats. Such a CVD policy plan would concretely also contribute to the target 3.4 under UN Sustainable Development Goals and thus would be a contribution to global health.

Inequities in society and access to CVD care drive poor outcomes

There are marked differences in rates of cardiovascular morbidity and mortality outcomes between western European countries and central and eastern European (CEE) countries. Not only are there more deaths in CEEs, but people die at a younger age from CVD in these countries^{ix}. And even though there has

been a decline in CVD mortality overall in western European countries, there are also sharp variations in outcomes within countries that should not be overlooked.

For instance, in a large cohort study in The Hague from 2007 to 2018, researchers found significant disparities in CVD death rates between ethnic and socioeconomic subgroups^x. Likewise, “Pays Centre Ouest Bretagne” in France was selected as a study location for the WHO Scaling-up Packaging of Interventions for Cardiovascular Disease Prevention (SPICES) project because of the excess cardiovascular mortality in that region compared with France overall^{xi}.

Although no tier of society is immune from the devastating impact of CVD, inequities such as income inequality, educational attainment, inadequate prevention programs, and variations in access to treatment all contribute to driving up the rates of preventable deaths from CVD. We must acknowledge the need to invest in our health capital in order to protect our human capital.

Risk factor mitigation leads to reduction of morbidity and mortality

The Global Burden of Disease (GBD) consortium estimates that between 80-100% of deaths from the leading CVDs are attributable to known risk factors both modifiable and inherited^{xii}, including high low-density lipoprotein “bad” cholesterol (LDL-C), diabetes, hypertension, body mass index (BMI), tobacco smoking and diet, as well as inherited traits such as Lipoprotein (a) and familial hypercholesterolemia^{xiii}. The screening of the four metabolic risk factors (blood pressure, blood sugar, BMI and cholesterol) are also recommended by the WHO technical heart series.

A comprehensive guidance on how to treat the four metabolic risk factors when diagnosed should be included in a CVD plan for all four areas.

Risk mitigation programs to screen for and specifically target people at risk could play a significant role in reducing the morbidity and mortality burden of CVD. In its 2020 update on CVD, the GBD flagged the need to address risk factors as an important initial opportunity to reduce disparities in parallel with broader effort targeting social determinants of health^{xii}.

The importance of secondary prevention at primary care level

To drive down CVD mortality, we must acknowledge and fix the shortcomings in current treatment strategies. In the case of the risk factor LDL-C, for example, a recent Europe-wide study of patients receiving lipid-lowering therapy (LLT), showed less than 25% of patients at high risk were achieving LDL-C goals, and only 54% of patients overall^{xiii}. Other studies report only 5.1% of LLT treated patients are achieving LDL-C targets^{xiv}.

Programmes to encourage healthy lifestyles and better awareness of CVD risks should continue and be enhanced by the use of technology, such as wearables and apps, for greater impact. But these programmes will not provide a solution for people already at high risk, or for populations that are resistant to, or feel excluded from these campaigns. Secondary prevention approaches are critically important to reduce premature deaths from CVD. Secondary prevention strategies targeted toward known CV risk factors are crucial to best support these patients.

Possible actions to be included in such a programme include:

- Discharge protocols in place and updated to align with guidelines (if applicable) – assess all four metabolic risk factors again after an event.
- Follow-up consultations at GPs after event including an assessment of all four metabolic risk factors; a comprehensive guidance on how to treat the risk factors to be included.

The way forward

The European Society of Cardiology (ESC) and the European Heart Network (EHN) have published a blueprint for European action, identifying several immediate needs in the CVD landscapeⁱⁱⁱ. They call for the use of digital innovation, the establishment of region-wide registry capabilities, the development of a research agenda, and emphasise a population health approach that incorporates primary and secondary prevention, and best practice sharing to identify and target people at risk for CVD and those with CVD to drive towards better outcomesⁱⁱⁱ.

The European Commission has expressed an interest in leadership on addressing public health challenges and driving best practices across the region. The needs around CVD present an opportunity for the EU to demonstrate leadership to achieve the WHO goals, endorsed by the UN, of reducing CVD by 25% by 2025^{xv,xvi}, by promoting the need for comprehensive CVD national action plans, including reduction of mortality targets, establishing targeted screening policies and promoting innovative access schemes and patient identification strategies.

To achieve impact on cardiovascular health requires a closer collaboration between policy makers, the healthcare system and industry. Public private partnerships could help pool resources to co-create and share value and improve population health outcomes at scale. For this, innovative thinking and political leadership is needed to change the current inertia and perception that CVD is only a lifestyle driven disease. Additionally, financial and non-financial incentives plus digital solutions for patient identification and risk stratification are needed to support the improved management of CV-conditions.

Ensuring that European “Beat CVD policy activities” make a difference in CVD-patients’ lives, no matter where they live within the EU, we encourage to include the following guiding principles into the “Healthier Together” Initiative:

- a. Be a broad and inclusive collaboration promoting continuous innovation in CVD treatment on an equal footing to concrete prevention and management of CVD;
- b. Improve outcomes for European citizens who already live with cardio-vascular conditions,
and;
- c. Ultimately reduce premature and preventable deaths in Europe.

ⁱ Severity of COVID-19 is associated with increased age, male sex, and pre-existing medical conditions. Underlying health conditions reported among adult patients with severe COVID-19 disease include hypertension, history of heart failure, ischaemic heart disease. With regards to mortality among hospitalised COVID-19 cases, moderate certainty evidence has been noted for ischaemic heart disease, stroke, and obesity. Mortality among cases detected in the community setting is associated with a history of heart failure and stroke. High or moderate certainty evidence reveals a strong association between hospitalisation for COVID-19 and heart failure, and ischaemic heart disease in the community setting.

[European Center for Disease Prevention and Control, Covid-19 Risk Factors and Risk Groups](#)

ⁱⁱ Thakur B et al. A systematic review and meta-analysis of geographic differences in comorbidities and associated severity and mortality among individuals with COVID-19. *Sci Rep.* 2021 Apr 20;11(1):8562

ⁱⁱⁱ Fighting cardiovascular disease—a blueprint for European Action. European Society of Cardiology 2020

^{iv} [Preventable and treatable mortality statistics](#). Eurostat. Retrieved October 22, 2021

^v Wilkins E. et al. *European Cardiovascular Disease Statistics 2017*. European Heart Network, Brussels

^{vi} Timmis A, et al. *European Society of Cardiology: cardiovascular disease statistics 2021*. *Eur Heart J.* 2022

^{vii} Peters A, Schneider A. Cardiovascular risks of climate change. *Nat Rev Cardiol.* 2021 Jan;18(1):1-2

^{viii} [Towards a more resilient Europe post-coronavirus: options to enhance the EU’s resilience to structural risks](#). *EPRS April 2021*

^{ix} Movsisyan NK, Vinciguerra M, Medina-Inojosa JR, Lopez-Jimenez F. Cardiovascular Diseases in Central and Eastern Europe: A Call for More Surveillance and Evidence-Based Health Promotion. *Ann Glob Health.* 2020 Feb 26;86(1):21

^x Kist JM et al. Large health disparities in cardiovascular death in men and women, by ethnicity and socioeconomic status in an urban based population cohort. *EClinicalMedicine.* 2021 Aug 29;40:101120

^{xi} Le Goff D et al. Innovative cardiovascular primary prevention population-based strategies: a 2-year hybrid type 1 implementation randomised control trial (RCT) which evaluates behavioural change conducted by community champions compared with brief advice only from the SPICES project (scaling-up packages of interventions for cardiovascular disease prevention in selected sites in Europe and sub-Saharan Africa). *BMC Public Health.* 2021 Jul 19;21(1):1422

^{xii} Roth GA, et al. Global Burden of Cardiovascular Diseases Writing Group. Global Burden of Cardiovascular Diseases and Risk Factors, 1990-2019: Update From the GBD 2019 Study. *J Am Coll Cardiol.* 2020 Dec 22;76(25):2982-3021

^{xiii} Ray KK. DA VINCI study. EU-Wide Cross-Sectional Observational Study of Lipid-Modifying Therapy Use in Secondary and Primary Care: the DA VINCI study. *Eur J Prev Cardiol*. 2021 Sep 20;28(11):1279-1289

^{xiv} Gavina C et al. Cardiovascular risk profile in Portugal: evidence from a large population-based cohort. *Eur Heart J*, Volume 42, Issue Supplement_1, October 2021, ehab724.2480

^{xv} World Health Organization. Global action plan for the prevention and control of NCDs 2013-2020

^{xvi} United Nations General Assembly (2012). The future we want – resolution adopted by the General Assembly.